REMARKS

Claims 1, 2, 4, 8, 9, and 11-22 are pending in the present application. Claims 8 and 11 are objected to because of certain informalities. Claims 1, 2, 8, 9, and 12-22 stand rejected under 35 U.S.C. §112. and claims 1, 2, 4, 8, 9, and 11-22 stand rejected under 35 U.S.C. §103.

Applicants would like to thank the Examiner for withdrawing the 35 U.S.C. §112, first paragraph, rejection of claims 1, 2, 4, 8, 9, and 11-22, recognizing that the claims comply with the written description requirement.

With respect to the remaining objections and rejections, Applicants respectfully request the reconsideration and withdrawal of such objection and rejections based on the foregoing amendments and the following remarks.

Examiner Interview

The undersigned wishes to thank the Examiner for taking the time to conduct a telephonic interview on Tuesday, September 16, 2008. During the interview, the Section 103 rejections were briefly discussed and the points below were presented. In particular, the undersigned pointed out the difference between the claims and the prior art to the Examiner, namely that the prior art reference Zgarba would not function properly if the target language specified was different than the language of the processed block (as claimed). Zgarba's method may operate to work with various languages in different models. However, in a particular model, Zgarba operates on each section of code to produce a target code that is in the *same* language as the initial language. If Zgarba attempted to function as the claimed elements, Zgarba's reverse engineered source code could not be compared to the existing source code, which is an integral part of Zgarba's method, and non-updated portions of source code could not be merged with existing portions of source code, also an integral part of Zgarba's method. The undersigned's arguments are described in further detail below.

Also, the Examiner suggested that claims 1, 8, and 22 be amended to include claim elements to correspond to the preamble. Amendments to that effect have also been included. While no agreement was reached, the Examiners indicated that they would further consider the points raised.

Claim Objections

Claims 8 and 11 are objected to for containing typographical errors. Applicants has amended claims 8 and 11 to correct the typographical errors as suggested by the Examiner in the office action. Accordingly, Applicants request withdrawal of the claim objections.

35 U.S.C. §112 Rejection

Claims 1, 2, 8, 9, and 12-22

Claims 1, 2, 8, 9, and 12-22 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Claims 1, 2, 8, 9, and 12-22 also stand rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential steps. With respect to both the 35 U.S.C. §112, first paragraph and second paragraph rejection, the rejection based on enablement and as being incomplete is based on the alleged omission in the claims of matter disclosed to be essential to the invention as described in the specification or in other statements of record. The office action sets forth that the omitted step is "generating procedural-oriented output source code from the functional software model."

Applicants submit that the claim elements are directed to achieving the functionality recited in the preamble, and do not require the additional step suggested by the Examiner. However, to advance prosecution, Applicants have amended claims 1, 8, and 22 to include claim elements to correspond to the preamble as suggested by the Examiner. In particular, claims 1 and 22 have been amended to recite a "functional model" and "generating procedural-oriented output source code from the functional model." Support for the amendment can be found throughout Applicant's Specification, in particular paragraph [0037]. Similarly, claim 8 has been amended to recite a "functional software model" and "generating procedural-oriented output source code in the at least one target language from the functional model"

With respect to both the 35 U.S.C. §112, first paragraph and second paragraph rejection, the amended claim language complies with both the enablement requirement and the completion requirement, respectively. Accordingly, Applicants respectfully request

reconsideration and withdrawal of the 35 U.S.C. §112, first paragraph and second paragraph rejections of independent claims 1, 8, and 22 in light of the amendment made in accordance with the Examiner's suggestion. Applicants likewise request reconsideration and withdrawal of the 35 U.S.C. §112, first paragraph and second paragraph rejections of claims 2, 9, and 12-21, which were rejected for depending from claims 1, 8, and 22, and are likewise allowable for the reasons above.

Claims 1, 4, 11, 12, 16, and 20-22

Claims 1, 4, 11, 12, 16, and 20-22 stand rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. In particular, the Examiner suggests that the claims are indefinite for not specifying "procedural-oriented" with respect to the "programming languages" language recited in claims 1, 4, 8, and 11. Applicants have amended the claims accordingly, and therefore request reconsideration and withdrawal of claims 1, 4, 8, and 11, and the claims that depend from the independent claims, namely claims 12, 16, and 20-22.

35 U.S.C. §103 Rejection

Claims 8, 9, 12, 15, 16, 19, 20

Claims 8, 9, 12, 15, 16, 19, and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,502,239 ("Zgarba") in view of official notice taken by the Examiner. Claims 1, 2, 4, 10, 11, 17, 18, 21, and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Zgarba in view of U.S. Patent No. 6,199,195 ("Goodwin") and in view of official notice taken by the examiner.

Independent claim 8 is directed to processing a block of procedural-oriented programming code and generating a graphical representation of a plurality of code elements and flow of the block. The claimed block of code may be in at least one initial language, and at least one target language is specified for which procedural-oriented output source for the graphical representation is to be generated. *The target language may be different from an initial language of the processed block.* Thus, as described in Applicant's Specification, the claimed elements provide for a method of generating a functional model for blocks of code, *each of which may be in various programming languages.* Modeling the code in this manner

enables the code structure, *in the **same** model*, and *in **any number** of languages*, to be functionally modeled, and then output source code, *in **any number** of languages*, may be selected for the resulting code.

When explaining how and why the examiner can not change the principle of operation of the cited reference or render the cited reference inoperable for its intended purpose. See MPEP 2143.01 V and VI. As described herein, the reverse-engineering/forward-engineering methods of Zgarba would not operate as described if an initial language was different from a target language, as recited in the claims. Rather Applicants submit that Zgarba does require the programming language of the source code represented by the software model to be the same as the programming language of the generated code from the software model. Thus, Applicant submits that Zgarba in view of the official notice taken by the examiner does not teach the elements of independent claim 8 and, thus, claim 8 is in condition for allowance.

In particular, Zgarba updates source code in the *same* language for which it was *originally* written. While Zgarba's method may operate to work with various languages in different models, but in a particular model, Zgarba operates on each section of code to produce a target code that is in the *same* language as the initial language. As described in Zgarba, a software model may be forward engineered to generate source code for a project. When the software project is reverse engineered from source code, and the software model is forward engineered, the resultant code should be ***essentially the same*** (Zgarba, Col. 4, lines 15-24). To function, Zgarba needs the reverse engineered code and the forward engineered code as an indication that the software model is working properly. The importance of this aspect of Zgarba is further described, in that the existing source code is merged with data from the software model to generate new source code. It is integral to Zgarba that the non-updated portions of the existing source code be maintained and merged with the updated source code, to replace the existing source code. (Zgarba, Col. 4, lines 35-40). If Zgarba attempted to function as the claimed elements, Zgarba's reverse engineered source code could not be compared to the existing source code, which is an integral part of Zgarba's method, and non-updated portions of source code could not be merged with existing portions of source code, also an integral part of Zgarba's method.

Applicant respectfully submits that the modification involving the incorporation of the teachings of Archambault into the teachings of Zgarba would not have been obvious to

one of skill in the art merely based on the motivation to process all the code elements of the source code. Firstly, Archambault teaches processing code from an innermost nested loop and moves outwards in order to construct a program dependence graph.

Applicant traverses the official notice taken by the Examiner for the aforementioned features in claims 8, 9, 12, 15, 16, 19, and 20. However, despite the traversal, Applicant submits that the features for which official notice were taken do not cure the deficiencies of Zgarba with respect to the remaining claim elements.

Accordingly, applicant respectfully requests withdrawal of the rejection of independent claim 8, and claims 9, 12, 15, 16, 19, and 20 that depend therefrom, under 35 U.S.C. § 103(a).

Claims 1, 2, 4, 10, 11, 17, 18, 21, and 22

Claims 1, 2, 4, 10, 11, 17, 18, 21, and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Zgarba in view of U.S. Patent No. 6,199,195 ("Goodwin") and in view of official notice taken by the examiner.

Independent claim 1 is directed to generating source code from a functional model. The Office Action asserts that Goodwin teaches "a selector for selecting at least one of a plurality of programming languages in which to generate functional output source code from the functional model." Applicant respectfully disagrees that Goodwin teaches the claimed element. Rather, the selection in Goodwin (col 13, lines 44-55) is not the selection of at least one of a plurality of procedural-oriented programming languages for the output source code. Goodwin's selection is a selection of a data model to use for the creation of code. The language itself is not chosen in Goodwin, but rather, the data model to be used for the creation of code.

Furthermore, the MPEP provides several guidelines for rejecting a claim under 35 U.S.C. 103(a). Specifically, reference is made to MPEP § 2141. III Rationales To Support Rejections Under 35 U.S.C. 103, which states in part:

> "Office personnel must explain <u>why</u> the differences(s) between the
> prior art and the claimed invention would have been obvious to one
> of ordinary skill in the art. ... The key to supporting any rejection
> under 35 U.S.C. 103 is the clear articulation of the reason(s) <u>why</u> the
> claimed invention would have been obvious. The Supreme Court in

> *KSR* noted that the analysis supporting a rejection under 35 U.S.C.
> 103 should be made explicit. The Court quoting *In re Kahn,* 441
> F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that
> "'[R]ejections on obviousness cannot be sustained by mere
> conclusory statements; instead, there must be some articulated
> reasoning with some rational underpinning to support the legal
> conclusion of obviousness.'" *KSR*, 550 U.S. at ___, 82 USPQ2d at
> 1396." (Emphasis added)

Additionally, the Examiner should explain <u>how</u> to combine the references, per MPEP
706.02(j).

> "35 U.S.C. 103 authorizes a rejection where, to meet the claim, it
> is necessary to modify a single reference or to combine it with one
> or more other references. After indicating that the rejection is
> under 35 U.S.C. 103, the examiner should set forth in the Office
> action: (A) the relevant teachings of the prior art relied upon,
> preferably with reference to the relevant column or page number(s)
> and line number(s) where appropriate, (B) the difference or
> differences in the claim over the applied reference(s), (C) the
> proposed modification of the applied reference(s) necessary to
> arrive at the claimed subject matter, and (D) an explanation >as
> to< why >the claimed invention would have been obvious to< one
> of ordinary skill in the art at the time the invention was made**."
> (Emphasis added)

When explaining how and why the examiner can not change the principle of operation
of the cited reference or render the cited reference inoperable for its intended purpose. See
MPEP 2143.01 V and VI.

The examiner does not describe how Zgarba would be modified to incorporate the
data model selection feature of Goodwin for procedural-oriented source code. Goodwin, in
general, is directed to generating *objects* where the input to the modeler is within an *object
framework* (Goodwin, col. 4, ll. 1-2) The modeler in Goodwin models objects or data in
object classes, which is a useful tool in object-oriented programming. Further, the code
generator in Goodwin "reads the object elements" and "applies a set of known templates …
to the object elements of the unified models to produce a set of source code objects."
(Goodwin, col. 13, ll. 20-27). Thus, in light of the official action that code is written in
procedural-oriented code, the examiner does not describe how Goodwin, which does not

apply for procedural-oriented code, can be combined with Zgarba to teach the claimed elements.

Accordingly, applicant respectfully requests withdrawal of the rejection of independent claim 1, and claims 2, 4, 10, 11, 17, 18, and 21 that depend therefrom, under 35 U.S.C. § 103(a).

Claims 13 and 14

Claims 13 and 14 depend indirectly from independent claim 1. Applicants submit that independent claim 1 is allowable for the reasons stated above. Accordingly, claims 13 and 14 that depend from claim 1 are likewise allowable and request withdrawal of the rejection of claims 13 and 14 under 35 U.S.C. § 103(a).

CONCLUSION

For the foregoing reasons, Applicant respectfully submits that all of the claims of the present application patentably define over the prior art of record. Reconsideration of the Office Action and a Notice of Allowance are respectfully requested. In the event that the Examiner cannot allow the present application for any reason, the Examiner is encouraged to contact the undersigned attorney, Lori Swanson at (215) 564-8997 to discuss the resolution of any remaining issues.

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